In the claims:

1. A prosthetic femoral implant suitable for use in hip arthroplasty, said implant comprising:

a. a longitudinal stem having a distal end and a proximal end, said stem further having a longitudinal axis extending from said proximal end to said distal end;

b. a neck portion extending from said proximal end of said stem and having a femoral head configured for engagement within an acetabulum;

c. said neck portion having an axis extending through said femoral head and neck portion to intersect said stem axis, and wherein a transverse cross section of said neck portion taken perpendicular to said neck axis further comprises (i) a medial/lateral axis bisecting said cross section through a medial-most point along said medial edge and a point along said lateral edge of said cross section, thereby creating two anterior and posterior halves about said medial/lateral axis, said medial/lateral axis further defining a maximum medial/lateral width of said cross-section; and (ii) a maximum anterior/posterior axis intersecting said anterior and posterior edges and said medial/lateral axis to define a maximum anterior/posterior width of said cross section;

d. said transverse cross section further having a configuration defined by a medially-positioned circle comprising (i) said medial-most point of said cross section, (ii) a point taken on said anterior edge of said cross section, and (iii) a point taken on said posterior edge of said cross section, wherein each of said anterior and posterior edge points are located along said anterior and posterior edges, respectively, at a distance of 10% of said maximum medial/lateral width measured laterally from said medial-most edge point; and

e. said medially-positioned circle having a medial diameter ranging in length of about 66% or less of said maximum anterior/posterior width of said cross section.

2. The implant of claim 1, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

3. The implant of claim 1, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

4. The implant of claim 3, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

5. The implant of claim 3, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.

6. The implant of claim 5, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

7. The implant of claim 2, wherein said transverse cross section is taken at one or more points located at or between about 12 mm to about 18 mm below a center of said femoral head along said neck axis.

8. The implant of claim 7, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section

9. The implant of claim 8, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section

10. A prosthetic femoral implant suitable for use in hip arthroplasty, said implant comprising:

a. a longitudinal stem having a distal end and a proximal end, said stem further having a longitudinal axis extending from said proximal end to said distal end;

b. a neck portion extending from said proximal end of said stem and having a femoral head configured for engagement within an acetabulum;

c. said neck portion having an axis extending through said femoral head and neck portion to intersect said stem axis, and wherein a transverse cross section of said neck portion taken perpendicular to said neck axis further comprises (i) a medial/lateral axis bisecting said cross section through a medial-most point along said medial edge and a point along said lateral edge of said cross section, thereby creating two anterior and posterior halves about said medial/lateral axis, said medial/lateral axis further defining a maximum medial/lateral width of about 9 mm or greater; and (ii) a maximum anterior/posterior axis intersecting said anterior and posterior edges and said medial/lateral axis to define a maximum anterior/posterior width of said cross-section;

d. said transverse cross section further having a configuration defined by a medially-positioned circle comprising (i) said medial-most point of said cross section, (ii) a point taken on said anterior edge of said cross section, and (iii) a point taken on said posterior edge of said cross section, wherein each of said anterior and posterior edge points are located along said anterior and posterior edges, respectively, at a distance of 10% of said medial/lateral width measured laterally from said medial-most edge point; and

e. said medially-positioned circle having a medial diameter ranging in length of about 66% or less of said maximum anterior/posterior width of said cross section.

11. The implant of claim 10, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

12. The implant of claim 10, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

13. The implant of claim 12, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

14. The implant of claim 12, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.

15. The implant of claim 14, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

16. The implant of claim 10, wherein said maximum medial/lateral width is about 10 mm or greater.

17. The implant of claim 16, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

18. The implant of claim 17, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

19. The implant of claim 18, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

20. The implant of claim 18, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.

21. A prosthetic femoral implant suitable for use in hip arthroplasty, said implant comprising:

a. a longitudinal stem having a distal end and a proximal end, said stem further having a longitudinal axis extending from said proximal end to said distal end;

b. a neck portion extending from said proximal end of said stem and having a femoral head configured for engagement within an acetabulum;

c. said neck portion having an axis extending through said femoral head and neck portion to intersect said stem axis, and wherein a transverse cross section of said neck portion taken perpendicular to said neck axis further comprises (i) a medial/lateral axis bisecting said cross section through a medial-most point along said medial edge and a point along said lateral edge of said cross section, thereby creating two substantially symmetrical anterior and posterior halves about said medial/lateral axis, said medial/lateral axis further defining a maximum medial/lateral width of said cross-section; and (ii) a maximum anterior/posterior axis intersecting said anterior and posterior edges and said medial/lateral axis to define a maximum anterior/posterior width of said cross section;

d. said transverse cross section further having a configuration defined by a medially-positioned circle comprising (i) said medial-most point of said cross section, (ii) a point taken on said anterior edge of said cross section, and (iii) a point taken on said posterior edge of said cross section, wherein each of said anterior and posterior edge points are located along said anterior and posterior edges, respectively, at a distance of 10% of said maximum medial/lateral width measured laterally from said medial-most edge point; and

e. said medially-positioned circle having a medial diameter ranging in length of about 66% or less of said maximum anterior/posterior width of said cross section.

22. The implant of claim 21, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

23. The implant of claim 21, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

24. The implant of claim 23, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

25. The implant of claim 23, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.

26. The implant of claim 25, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

27. The implant of claim 22, wherein said transverse cross section is taken at one or more points located at or between about 12 mm to about 18 mm below a center of said femoral head along said neck axis.

28. The implant of claim 27, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section

29. The implant of claim 28, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section

30. The implant of claim 21, wherein said maximum medial/lateral width is about 9 mm or greater.

31. The implant of claim 30, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

32. The implant of claim 30, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

33. The implant of claim 32, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

34. The implant of claim 33, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.

35. The implant of claim 21, wherein said maximum medial/lateral width is about 10 mm or greater.

36. The implant of claim 35, wherein said transverse cross section is taken at one or more point located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

37. The implant of claim 35, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

38. The implant of claim 37, wherein said transverse cross section is taken at one or more points located at or between about 10 mm to about 22 mm below a center of said femoral head along said neck axis.

39. The implant of claim 38, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.

40. The implant of claim 31, wherein said transverse cross section is taken at one or more points located at or between about 12 mm to about 18 mm below a center of said femoral head along said neck axis.

41. The implant of claim 40, wherein said medial diameter is about 55% or less of said maximum anterior/posterior width of said cross section.

42. The implant of claim 41, wherein said medial diameter is from about 40% to about 50% of said maximum anterior/posterior width of said cross section.